Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

International Journal of Intercultural Relations 82 (2021) 298–310

Contents lists available at ScienceDirect

International Journal of Intercultural Relations

journal homepage: www.elsevier.com/locate/ijintrel

Longitudinal effects of U.S. students' reentry shock on psychological health after returning home during the COVID-19 global pandemic

Alice Fanari *, Chris Segrin

Department of Communication, The University of Arizona, 1103 East University Blvd, Tucson, AZ, 85721, United States

ARTICLE INFO

Keywords:
Reentry shock
Reacculturative stress
Study abroad
COVID-19
Loneliness
Psychological health

ABSTRACT

Guided by the stress process model (Pearlin, Mullan, Semple, & Skaff, 1990; Pearlin, 1999), the purpose of this longitudinal investigation was to examine the extent to which the stressor of premature forced reentry from studying abroad during the COVID-19 pandemic (e.g., reentry shock, reacculturative stress) was predictive of stress-related compromised mental health (i.e., perceived stress and loneliness) into the subsequent academic year. A total of 133 college students from different U.S. universities completed a short online questionnaire as soon as they came back from their study abroad experience (T1) and approximately six months after (T2), when they were resuming their Fall 2020 academic semester. Consistent with the stress process model, secondary stressors associated with reacculturation were predictive, concurrently and longitudinally, of mental health outcomes, especially loneliness, indicating that students who had the hardest time returning home unexpectedly were at the highest risk for worsened mental health over the following months. These findings reveal that reacculturation following unplanned termination of a study abroad experience is not an event as much as it is a process that unfolds over a period of months, as would be understood from the perspective of the stress process model.

Introduction

On March 11, 2020, the World Health Organization declared the novel SARS-CoV-2 coronavirus outbreak to be a global pandemic (World Health Organization, 2020). Although the number of cases was proliferating more rapidly outside than inside the United States (Jorden et al., 2020; Loeffler-Wirth, Schmidt, & Binder, 2020), on March 13, 2020, U.S. president Donald Trump declared a state of national emergency and issued travel restrictions for all foreign nationals and Americans arriving from countries identified as hot spots for the virus (Owen, 2020). As countries closed their borders (Dunford et al., 2020), the panic spread among travelers attempting to arrange their flight home. According to the guidelines issued by the Department of State, all Americans should avoid international travel, and citizens already abroad should consider immediate reentry unless they were prepared to remain abroad for an indefinite period of time (Redden, 2020). Consequently, many American colleges and universities immediately required their students who were studying abroad to return home (Connors, n.d.). These orders were delivered on very short notice at the same time that some nations were actually closing their airports.

For many returning students, hopes of returning to the relative safety of the United States were soon dashed as cases of COVID-19

* Corresponding author.
E-mail addresses: afanari@email.arizona.edu (A. Fanari), segrin@arizona.edu (C. Segrin).

https://doi.org/10.1016/j.ijintrel.2021.04.013
Received 26 October 2020; Received in revised form 15 April 2021; Accepted 23 April 2021
Available online 28 April 2021
0147-1767/© 2021 Elsevier Ltd. All rights reserved.

proliferated exponentially in the months of April and May (Dong, Du, & Gardner, 2020; World Health Organization, 2021). Upon their early reentry, many university students encountered a panoply of academic, financial, social, and family stressors, including having to return home only a few weeks after arriving to their study abroad location, having to hastily make international travel arrangements, secure housing upon their return home, and then adjust to stay-at-home orders as cases of the coronavirus spread throughout the U.S. (Redden, 2020). In addition, when they returned home, students often had to attend lectures in their host country with different time zones (Liu & Shirley, 2021), transfer credits, cancel pre-planned trips abroad, and even experience discrimination due to their recent repatriation from high-risk countries.

Guided by the stress process model (Pearlin et al., 1990; Pearlin, 1999), the primary aim of this longitudinal investigation is to examine the extent to which the stressor of forced reentry (T1) of students studying abroad (e.g., reentry shock, reacculturative stress) culminated in lasting psychosocial stress, extending into the subsequent academic year (T2). Because of this early, forced, and unexpected reentry, it is difficult to anticipate whether and to what degree students will experience secondary stressors (i.e., reentry shock and reacculturative stress) in their home country. Students barely had time to make friends abroad, learn the language, and get settled into their new culture when they had to come back home. The sense of loss and incompleteness from not being able to finish their study abroad experience could influence their psychological health and have long-term implications for their overall readjustment.

Cross-cultural transitions as a time of stress

In this investigation, the stress process model was used as a guiding framework to conceptualize primary and secondary stressors, as well as their effect on returning students' psychological well-being. According to the stress process model (Pearlin et al., 1990; Pearlin, 1999) primary stressors give rise to secondary stressors that, in turn, culminate in mental health outcomes such as perceived stress, depression, anxiety, and loneliness. In this regard, the stress process model is essentially a cascade model of responses to stress. Although not assessed in this investigation, there are a number of individual differences such as coping and social support (Van Gorp, Boros, Bracke, & Stevens, 2017), that can minimize or aggravate the cascade of responses to primary stressors. In the terminology of the stress process model, being required to prematurely terminate a study abroad experience and return home would be the primary stressor. This generates a range of secondary stressors. For this class of variables, we were particularly interested in those associated with the rapid and unexpected movement from one culture to another. For that reason, we operationalized secondary stressors as reentry shock and reacculturative stress. These secondary stressors were hypothesized to generate disrupted mental health outcomes. In this investigation these were operationalized as perceived stress and loneliness.

When individuals enter into an unfamiliar environment, whether it is crossing (or re-crossing) domestic or international boundaries, they experience stress (Ward, Bochner, & Furnham, 2001). In her integrative theory of cross-cultural adaptation (ITCCA), Kim (2001) described cross-cultural adaptation as a dynamic process of stress-adaptation-growth, by which individuals develop socio-cultural skills as a result of their initial struggle within the new environment. Similar to entering a foreign culture (Lysgaard, 1955; Oberg, 1960), the experience of reentry can be stressful because returners experience a second, more severe round of culture shock into their home country. *Reentry shock* (or reverse culture shock) is a state of temporary 'shock' and cultural paralysis characterized by "physical, psychological, linguistic, and socio-cultural difficulties experienced after an extended stay abroad" (Young, 2014, p. 59). Contrary to common knowledge, reentry shock is more severe than the initial culture shock because most returners typically do not anticipate a second round of "culture shock" in their own country (Arthur, 2003), especially when they have unrealistic expectations of home (Christofi & Thompson, 2007; Pitts, 2009) and lack the anticipatory coping skills and resources to move on and process the loss of the host culture (Arthur, 2003).

Associated with reentry shock, *re-acculturative stress* refers to the ensemble of physical, psychological, socio-cultural, and environmental difficulties experienced during the homecoming after an extended stay in a foreign country (Butcher, 2002; Choi, 2009). While the home country is supposed to be a familiar place, returners often struggle to readjust into the place they once called "home." Returners have to integrate aspects of the home and host culture (Pitts, 2016), while managing their new identity (Sussman, 2000) and re-establishing relationships with their loved ones (Martin, 1986). Reacculturative stress often manifests under a variety of struggles (Marsh, 1975), including physical (e.g., insomnia, GI issues, fatigue, weight gain and/or loss), psychological (e.g., loneliness, anxiety, and depression), linguistic (e.g., decreased fluency using the home language), sociocultural (i.e., failing to understand unspoken cultural norms in the home culture), and even environmental (i.e., re-adjusting to a different climate, urban configuration, etc.) challenges. Although the majority of these stressors are likely to disappear within the first week (Seiter & Waddell, 1989), previous studies found that returners experience reacculturative stress at different stages of reentry, following a development that Gullahorn and Gullahorn (1963) called the W-Curve. According to Gullahorn and Gullahorn (1963), after a brief honeymoon phase, characterized by excitement and relief to be back in the home country, returners experience the true reentry shock, as they start feeling disconnected from their home culture. In this stage, returners feel sad, frustrated, lonely, and withdrawn from their cultural and interpersonal environment (Pitts, 2016). However, little by little, they are able to integrate aspects of their host and home culture, leading to a successful readjustment.

Mental health outcomes upon reentry

Considering the dynamic and complex nature of cross-cultural transitions, the link between readjustment and psychological health cannot be overlooked. Within the last decades, previous studies confirmed the relationship between cross-cultural transitions and psychological health, especially during long-term experiences (Ryan & Twibell, 2000). Reacculturation stress has been conceptualized as a time of grief and mourning for the loss of the study abroad experience (Butcher, 2002), where returners feel sad, frustrated, lonely,

alienated, and withdrawn from their cultural and interpersonal environment (Pitts, 2016). Depression, loneliness, anxiety, frustration, dissatisfaction, social withdrawal, and trauma were among the main threats to returners' psychological health (Butcher, 2002; Pritchard, 2011; Seiter & Waddell, 1989). In her study, Isa (2000) suggested that returning wives of Japanese corporate sojourners sought medical treatment to combat depression and social isolation. Sahin (1990) also found that returners from a Turkish secondary school reported higher levels of clinical depression and anxiety than non-returning students. Finally, study abroad students with high levels of reentry shock were less likely to use the support services provided by the home university (Gaw, 2000), and were more likely to cope with negative feelings of reentry through self-harm, alcohol, or substance abuse than students who did not study abroad (Pedersen, Skidmore, & Aresi, 2014; Wielkiewicz & Turkowski, 2010). Overall, the sense of feeling different and isolated may cause alienation and withdrawal among returners (Adler, 1981).

Although the effects of reacculturative stress are temporary, the recent outbreak of COVID-19 may pose different and more severe challenges to returning students' physical and psychological health. Failing to provide support and address mental health concerns can result in long-term destabilizing outcomes, especially for college students who have just returned from a life-changing and transformative study abroad experience. Most college students are in the emerging adulthood period of the lifespan that is characterized by personal growth, development, and fine tuning of their coping strategies. Latent profile analyses show that approximately 40 % of emerging adults characteristically engage in low overall coping or high disengagement coping, both of which are dysfunctional and are associated with high levels of distress including depression (Hasselle, Schwartz, Berlin, & Howell, 2019). Unexpected transitions (such as a mandated return home) can be particularly hard on emerging adults and are longitudinally associated with perceived stress, loneliness, and alcohol problems (Segrin, Pavlich, & McNelis, 2017).

Perceived stress has repeatedly been shown to be associated with compromised well-being and adjustment in emerging adults (e.g., Asberg, Bowers, Renk, & McKinney, 2008). For these reasons, perceived stress was assessed in this investigation as a key indicator of mental health outcomes associated with the primary and secondary stressors that stem from premature termination of study abroad experiences, as well as a return home to an increasingly unsafe environment due to the exponential rise of COVID-19 cases in the United States.

The COVID-19 global pandemic that emerged in Spring 2020 is a clear example of the "process" part of the stress process model. The discovery of the novel coronavirus and its public health implications led many universities to abruptly recall their students who were studying abroad. This recall forced students to make travel arrangements on short notice, often at high cost, to transition from face-to-face learning to online learning, and in some cases to quickly find new housing in their home culture. These illustrate what are characterized as primary and secondary stressors in the stress process model (Pearlin, 1999). The secondary stressors represent the proliferation of stress that stems from the primary stressor. Students caught in this ambient string of hardships would be expected to experience substantial and enduring stress as they adjusted to these processes that unfolded over the course of weeks or months. For this reason, perceived stress was assessed at both waves of data collection to determine whether students showed signs of eventual readjustment as indicated by declines in perceived stress.

In addition to perceived stress, loneliness was examined as another mental health outcome of sudden reentry. Many returning students encountered extreme disruption of social networks caused by the return-home order. Relationships that were formed in the host culture were abruptly terminated. Even relationships with fellow study abroad students from the same university were often interrupted because most students returned to their family of origin rather than their university, as most schools transitioned to online course offerings early in the Spring 2020 semester. Prior research has shown that relocations and separations represent one of the top five causes of loneliness in adults (Rokach & Brock, 1996), an effect that has been replicated across cultures (Rokach, 2007). The interruption of relationships due to relocation is a dominant feature of the interpersonal lives of all study abroad students sent home unexpectedly in Spring 2020. Relationships in the home culture were at least temporarily halted by the departure to the host culture, and then newly formed relationships in the host culture were very abruptly ended by the forced departure back to the home culture. For this reason, loneliness was a primary focus of this study.

When the degree and quality of social relationships fall short of people's desires, they experience loneliness (Peplau & Perlman, 1982). Loneliness and stress are positively associated in university students (Hawkley, Burleson, Berntson, & Cacioppo, 2003; Stoliker & Lafreniere, 2015) as well middle aged and older adults (Hawkley et al., 2008). Loneliness is also associated with exaggerated physiological reactions to stress (Brown, Gallagher, & Creaven, 2018), higher levels of circulating stress hormones (Campagne, 2019; Steptoe, Owen, Kunz-Ebrecht, & Brydon, 2004), and compromised cardiovascular fitness (Hawkley et al., 2003), all indicative of the fact that loneliness is a stressful experience. In the stress process model, feelings such as loneliness and depression would be viewed as mental health outcomes toward the end of the cascade of stress.

In addition to perceived stress and loneliness, there are many other indicators of mental health that may be exhibited by university students. For example, students will increase consumption of alcohol in response to stress (Metzger et al., 2017; Segrin, McNelis, & Pavlich, 2018), which is in turn associated with higher depression (Creemers, Scholte, Engels, Pieters, & Wiers, 2013) and lower life satisfaction (Buser & Kearney, 2017). Attention to these constructs allows for a more comprehensive account of how people undergoing stressful circumstances are adjusting to or suffering from these processes.

The present study

This longitudinal study tests the extent to which reacculturative stress is associated with stress-related mental health outcomes in university students returning back to the United States from their terminated study abroad experience. In the terminology of the stress process model, the abrupt termination of the study abroad experience is the primary stressor, which is actually a constant (not a variable) in this investigation. Secondary stressors are those immediate social and psychological consequences of the primary stressor,

which in this study are operationalized as reentry shock and reacculturative stress. Finally, mental health outcomes represent the end of the cascade and are operationalized as perceived stress and loneliness.

At time 1 (i.e., right after students returned home), we assessed a comprehensive panel of mental health indicators that included alcohol consumption (frequency and binge drinking), depression, and life satisfaction, in addition to perceived stress and loneliness. These five indicators were tested for concurrent associations (at time 1) between secondary stressors and mental health outcomes. Because stress reactions have different attack and decay patterns in different people, we were particularly interested in modeling changes over time in these processes. Therefore, we followed returning students over a period of six months (time 2), by which time they would have not only finished the interrupted Spring 2020 semester but have started the Fall 2020 semester or graduated from the university. Presumably, this could mark a return to normal or a transition to the next stage of one's life. Ordinarily, both of these would be positive experiences but given the state of university education in Fall2020 in the U.S., and the employment market for recent college graduates, considerable variability in responses to these transitions would be expected.

Despite the sensitive nature of the topic, the unique socio-cultural conditions of this pandemic offer an opportunity to explore readjustment under circumstances never seen before. First, this is a rare case of "forced reentry" for many U.S. students. While involuntary reentry has been investigated with other types of returners (Szkudlarek, 2010), not much is known about involuntary reentry among study abroad students. Second, the abrupt disruption of the study abroad experience places returning students in a liminal position for cross-cultural (re)adaptation: They have just overcome the initial culture shock, but they are not fully adapted to the study abroad location yet (therefore they are not ready to go home). For students who started the experience abroad in January 2020, they were sent home as soon as their adventure began, when they were finally getting settled in. This state of "incompleteness" as well as the sudden and forced seclusion (i.e., quarantine) might have accentuated returners' feelings of isolation, loneliness, and alienation, amplified reacculturative stress, and prolonged their state of reentry shock. In order to examine stress processes specific to unplanned repatriation, the following hypotheses and research question were developed:

RQ1: Do indicators of stress decrease from T1 to T2?

H1. Reacculturation stress (i.e., reentry shock, reacculturative stress) will be concurrently associated with negative and positive indicators of mental health (i.e., perceived stress, loneliness, depression, alcohol consumption, and satisfaction with life).

H2. Reacculturation stress (i.e., reentry shock, reacculturative stress) will be prospectively associated with compromised mental health (i.e., perceived stress, loneliness).

Finally, we were interested to examine whether (and to what degree) mental health outcomes were associated with prolonged reacculturation stress after students had settled down in their home country and returned to "normalcy." While previous studies suggest that, if left unaddressed, the negative effects of reentry shock can lead to long-term mental health outcomes, academic difficulties, anxiety, and problems with interpersonal relationships (Tomlin et al., 2014), empirical evidence is still limited on the topic. While the effects of reentry shock are temporary and *should* decrease over time (Gaw, 2000; Gullahorn & Gullahorn, 1963; Pitts, 2016), the uncertainty and social isolation during the pandemic might prolong and even amplify reacculturative stress in light of students' mental health outcomes. Therefore, the last hypothesis concerns the relationship between mental health and reacculturative stress.

H3. Mental health problems (i.e., perceived stress, loneliness) upon return will predict greater perseverance of, or increases in, reacculturative stress.

Method

Participants

The sample at T1 consisted of 133 participants who met all the inclusion criteria and completed the full survey. The majority of students identified as White ($n = 91$; 68.4 %), female ($n = 104$; 78.2 %), currently enrolled in their junior year ($n = 70$; 52.6 %), and who were able to remain abroad for a period of time between one and two months ($n = 58$; 43.6 %). The average age was 20.6 ($SD = 1.66$), ranging from 18 to 30. Participants were from 39 universities inside the United States and six universities outside the United States who studied abroad in 23 different countries.[1] There were 123 American students in the sample and 10 international students from other nations. At the time of completing the T1 questionnaire, students had been back at their home on average 27.90 days ($SD = 13.29$). Six months later, 79 % of students completed the T2 questionnaire. Information on participants' demographic characteristics are reported in Table 1.

Procedure

Participants had to meet the following criteria to be eligible to participate: (a) being a currently enrolled university student who (b)

[1] Participants' host country (i.e., the foreign location of the study abroad sojourn) included the following countries: Italy, Spain, France, Switzerland, Austria, Germany, Greece, Israel, Slovenia, Romania, Czech Republic, Estonia, Finland, the Netherlands, Denmark, the United Kingdom, Ireland, Morocco, Kenya, Costa Rica, Colombia, South Korea, and Australia.

Table 1
Participants' Demographic Information at T1.

Characteristic	Response	N	Percentage
Gender	Male	28	21.1%
	Female	104	78.2 %
	No Response	1	0.8%
Ethnicity	White/Caucasian	91	68.4 %
	Black/African American	12	9.0%
	Hispanic/Latino	17	12.8%
	Asian	12	9.0%
	No Response	1	0.8%
Current Grade	Freshman	2	1.5%
	Sophomore	38	28.6%
	Junior	70	52.6 %
	Senior	18	13.5%
	Graduate	3	2.3%
	Other	2	1.5%
	No Response	0	0%
Length of Study Abroad	Less than 2 weeks	19	14.3%
	Between 2 weeks and 1 month	4	3%
	Between 1−2 months	58	43.6 %
	More than 2 months	52	39.1%

participated in a study abroad program during the Spring 2020 semester and (c) was forced to return home early due to the COVID-19 pandemic. Participants were recruited using a combination of purposive and snowball sampling through personal and professional connections of the first author and contacting study abroad program coordinators at different academic institutions. After receiving approval by the Institutional Review Board, data at T1 were collected as soon as students returned home from their study abroad experience (March-April 2020). Participants were given a URL to complete a Qualtrics online survey, which took approximately 10–15 to complete. Following similar procedures, data at T2 were collected six months later (September 2020) from participants who completed the questionnaire at T1 and expressed interest in participating in a shorter follow-up survey. Participants received a $10 Amazon gift card for their participation, both at T1 and T2.

As part of a larger project, between the T1 and T2 data collection (June-July 2020), a series of focus groups were conducted to further explore the forced experience of reentry as a result of the COVID-19 pandemic. A total of 25 students who expressed interest in sharing their story participated in a one-hour focus group and received an additional $20 Amazon gift card for their participation. Using qualitative techniques of thematic analysis (Braun & Clarke, 2006) and constructivist grounded theory (Charmaz, 2014), a list of 30 COVID-19 related stressors was generated and included in the T2 online questionnaire as a COVID-19 stress variable. This scale was developed to identify unique, unexpected, and non-normative stressors associated with the reentry home during the COVID-19 pandemic.

Measures

Reentry shock

Reentry shock was measured on a 5-point Likert scale (1= *strongly disagree* and 5= *strongly agree*) using 16 items adapted from Seiter and Waddell's (1989) instrument (e.g., "I had difficulty adjusting to my home culture after returning from abroad" and "I miss the foreign culture where I stayed."). This scale has been found reliable to test perceived cultural, social, and interpersonal distance with the home culture (Gaw, 2000; Presbitero, 2016) and had an overall internal reliability at T1 of $\alpha = .84$ and $\alpha = .80$ at T2.

Reacculturative stress (during COVID-19)

Reacculturative stress was measured using a modified version of the Acculturative Stress Scale for International Students (ASSIS), which has been found reliable across studies (Choi & Dancy, 2009). This scale measured reacculturative stress in social situations during the COVID-19 pandemic that are generally associated with the stigma of returning from a foreign culture where COVID-19 may have been prevalent (e.g., "Because of COVID-19, I was treated differently"), with 5-point Likert scale response options (from 1= *strongly disagree*, to 5 = *strongly agree*). The original scale had five items, but one was dropped due to having a low item-to-total correlation. Higher scores on the measure indicate greater reacculturative stress. Internal reliability at T1 was $\alpha = .73$.

Perceived stress

The seven negative items (indicating stress) from the Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1983) were administered to assess returners' perceptions of the extent to which the experiences that they have been encountering are perceived as stressful (e.g., "How often have you felt difficulties were piling up so high that you could not overcome them?") on a 5-point scale where 1 = *never* and 5 = *very often*. Internal reliability at T1 was $\alpha = .84$ and $\alpha = .78$ at T2.

COVID-19 stress

The COVID-19 Stress Scale (30 items) assesses daily hassles and negative affect experienced by the returning student (see Table 3). The instructions asked returning students to indicate (a) whether and (b) to what degree they experienced any COVID-19 related stressors as a result of their early reentry. If participants experienced the stressor, they rated how stressful it was between 1 = *not at all stressful*, and 5 = *extremely stressful* (e.g., "I was not able to say goodbye to people in my study abroad location", "I received little instruction from my study abroad program concerning the reentry home"). If participants did not experience the stressor, they were asked to select 0 = *did not happen*. The list of items was generated from the qualitative data obtained from focus groups conducted between T1 and T2. Therefore, COVID-19 stress was only measured at T2 and had internal consistency reliability of α = .85. Because this is a newly developed scale, an additional reliability analysis was conducted by calculating McDonald's ω (McDonald, 1999). McDonald's ω has been shown to outperform alpha when violations of tau-equivalence, which are common in social science, are evident (Zinbarg, Revelle, Yovel, & Li, 2005). In this case the reliability was ω = .86 (95 % confidence interval = .82–.89). The scale's concurrent validity is established by its correlation of $r = .36$, $p < .001$ with T2 perceived stress and $r = .64$, $p < .001$ with reentry shock at T2, two closely related constructs. The COVID-19 Stress Scale administered at T2 was significantly predicted by T1 reentry shock, $r = .60$, $p < .001$, providing further evidence of its validity.

Alcohol consumption

Alcohol consumption was assessed at T1 with two questions from the National Institute on Alcohol Abuse and Alcoholism's Task Force on Recommended Alcohol Questions (www.niaaa.nih.gov/research/guidelines-and-resources/recommended-alcohol-questions). Questions included the frequency of drinking beer, wine coolers, wine, or liquor on an 8-point scale (1 = *every day,* 8 = *I never drank alcohol in my life*), and frequency of binge drinking (i.e., having five or more [for males] or four or more [for females] drinks in a two-hour period) on a 7-point scale (1 = *every day,* 7 = *0 days*). Each question was temporally anchored with the phrase "Since returning home from your study abroad experience." Questions also had information to standardize units of consumption, for example "By a drink we mean half an ounce of absolute alcohol (e.g., a 12 ounce can or glass of beer or cooler, a 5-ounce glass of wine, or a drink containing 1 shot of liquor)".

Depression

Depressive symptoms were measured on a 5-point Likert scale (1 = *never* and 5 = *very frequently*) using the Center for the Epidemiological Studies-Depression (CES-D) scale (Radloff & Teri, 1986). The scale included a total of 10 items (e.g., "I felt that everything I did was an effort") and the internal reliability at T1 was α = .85.

Loneliness

Loneliness was measured using a total of eight items from the UCLA Loneliness Scale, Version 3 (Russell, 1996), which asked participants to assess how often they experience the feelings described in each item (e.g., "There is no one I can turn to") on a 5-point scale where 1 = *never* and 5 = *always*. This scale contains items that reflect both psychological (e.g., "People are around me but not with me") and physical (e.g., "I feel isolated from others") separation from other people. The internal reliability at T1 was α = .81 and α = .89 at T2.

Satisfaction with life

Satisfaction with life was only measured at T1, using a 7-point Likert scale (1= *strongly disagree* and 7 = *strongly agree*) with five items from Pavot and Diener's (2008) Satisfaction with Life Scale (SWLS). Higher scores indicate greater life satisfaction (e.g., "I am satisfied with my life"), and the internal reliability at T1 was α = .83.

Analytic strategy

Prior to testing the study's hypotheses, preliminary analyses were conducted to test for patterns of missingness in the data with Little's MCAR test and potential bias as a function of attrition from T1 to T2 with t-tests and chi-square tests. RQ1 was tested with paired t-tests of the differences in indicators of stress from T1 to T2. H1 was tested with correlations between reacculturative stress and indicators of mental health. Finally, H2 and H3 were evaluated in structural equation modeling with maximum likelihood estimation by testing the fit of a model in which reentry shock, reacculturative stress, perceived stress, and loneliness at T1were specified as exogenous variables and reentry shock, COVID-19 stress, perceived stress, and loneliness at T2 were specified as endogenous variables. The fit of the model was evaluated with metrics described by West, Taylor, and Wu (2012) that included $\chi^2/df < 5$, NFI > .95, CFI > .95, and RMSEA < .06.

Results

Little's MCAR test was used to evaluate the pattern of missingness in the data. The results of this test revealed a pattern that was completely missing at random, $\chi^2 = 1387.51$, $df = 1676$, $p = > .99$. In addition, all major study variables and demographic characteristics at T1 were tested for attrition effects by comparing those who remained in the study ($n = 103$) to those who had dropped out of the study by T2 ($n = 30$). Independent samples t-tests revealed no differences in T1 reentry shock, reacculturative stress, perceived stress, loneliness, depression, or satisfaction with life as a function of participation at T2, all $ts < 0.74$, $ps > .45$, $\eta^2s < .004$. Also, there were no significant differences in gender χ^2 (2) = 0.399, $p = .819$, φ = .03, ethnicity χ^2 (3) = 4.438, $p = .218$, φ = .18 or duration spent

abroad, Mann-Whitney U = 1461.50, $z = .45$, $p = .65$ as a function of presence or absence in the study at T2.

The purpose of RQ1 was to assess whether indicators of stress decrease from T1 to T2. To test RQ1, paired t-tests were conducted on each of the indicators of stress and mental health that were assessed at T1 and T2, namely reentry shock, perceived stress, and loneliness. Results indicated statistically significant decreases in reentry shock, $t\,(96) = 2.00$, $p = .048$, $d = .20$, $M_{T1} = 3.30$, $SD_{T1} = 0.67$, $M_{T2} = 3.21$, $SD_{T2} = 0.59$, and loneliness, $t\,(100) = 3.47$, $p = .001$, $d = .35$, $M_{T1} = 2.76$, $SD_{T1} = 0.75$, $M_{T2} = 2.53$, $SD_{T2} = 0.82$, but not perceived stress, $t\,(101) = 1.69$, $p = .093$, $d = .17$, $M_{T1} = 3.19$, $SD_{T1} = 0.67$, $M_{T2} = 3.10$, $SD_{T2} = 0.56$, over the 6-month T1-T2 interval. Even though T2 means were lower than T1 means for all three indicators of stress assessed at T1, 39 % of the participants reported increases in reentry shock, 37 % reported increases in perceived stress, and 33 % reported increases in loneliness from T1 to T2. This indicates that there is substantial variability in recovery from the stress of reentry that could be modeled in subsequent analyses.

Hypothesis 1 predicted that reacculturation stress (i.e., reentry shock, reacculturative stress) would be concurrently associated with negative and positive indicators of mental health (i.e., perceived stress, loneliness, depression, alcohol consumption, and satisfaction with life). This hypothesis was tested by computing a correlation matrix among all major study variables. These results that appear in Table 2 show that reentry shock at T1 was positively associated with perceived stress, loneliness, depression, and binge drinking, and negatively associated with satisfaction with life. In some cases, these concurrent associations were large in magnitude, such as with depression, $r = .72$, $p < .001$, and loneliness, $r = .67$, $p < .001$. Similarly, reacculturative stress at T1 was significantly associated with perceived stress, loneliness, depression, and lower satisfaction with life.

Hypothesis 2 predicted that reacculturation stress (i.e., reentry shock, reacculturative stress) would be prospectively associated with mental health (i.e., perceived stress, loneliness), while Hypothesis 3 asked whether mental health (i.e., perceived stress, loneliness) upon return would predict greater increases in reacculturative stress. Tests of H2 and H3 were conducted with structural equation modeling using full information maximum likelihood estimation in AMOS 25. Full information maximum likelihood estimation is a method for handling missing data by estimating a likelihood function for each individual based on variables that are present in the data set so as to use all available data (Enders & Bandalos, 2001). The analysis modeled concurrent associations between reentry shock, reacculturative stress, perceived stress, and loneliness at T1 and their prediction of reentry shock, COVID-19 stress, perceived stress, and loneliness at T2. In this model, only those variables assessed at both T1 and T2 were included, with the exception of reacculturative stress (measured at T1 only) and COVID-19 stress (measured at T2 only). These measures are comparable though not identical, but because the COVID-19 stress measure was empirically derived from focus groups conducted between T1 and T2, it was not possible to use the measure at T1. Specification of correlations among all of the exogenous variables allows for tests of prospective main effects (e.g., reentry shock at T1 predicting loneliness at T2, controlling for loneliness at T1). Such tests effectively model changes in endogenous variables as a function of the exogenous variables. Correlations were specified among all of the error terms associated with the endogenous variables but are not displayed in Fig. 1. For ease of presentation, statistically nonsignificant paths from the model were trimmed as recommended by Kline (2015). The resultant model, depicted in Fig. 1, provided a close fit to the sample data, $\chi^2 = 5.72$, $df = 7$, $p = .57$, $\chi^2/df = 0.82$, NFI = .99, CFI = 1.0, RMSEA = .00, 90 % CI = .00–.09.

The results in Fig. 1 indicate that all forms of stress assessed at T1 (i.e., reentry shock, reacculturative stress, perceived stress, and loneliness) were significantly correlated with moderate to strong associations of $r = .25–.67$. There are five prospective effects in Fig. 1 that are particularly noteworthy. First, reentry shock at T1 predicted increases in loneliness from T1 to T2, $\beta = .22$, $p = .02$. Second, reacculturative stress at T1 predicted increases in loneliness from T1 to T2, $\beta = .15$, $p = .03$. Third, loneliness at T1 predicted increases in reentry shock from T1 to T2, $\beta = .23$, $p = .01$. Fourth, loneliness at T1 predicted increases in perceived stress from T1 to T2, $\beta = .22$, $p = .01$. Finally, perceived stress at T1 predicted decreases in loneliness from T1 to T2, $\beta = -.19$, $p = .01$. These prospective effects are particularly remarkable in light of the fairly strong autoregressive effects of reentry shock, perceived stress, and loneliness over the 6-month T1-T2 interval.

Table 2
Correlations Among Major Study Variables at T1 and T2.

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. Reentry Shock T1	–											
2. Reacculturative Stress T1	.25*	–										
3. Perceived Stress T1	.49*	.36*	–									
4. Loneliness T1	.67*	.29*	.46*	–								
5. Depression T1	.72*	.29*	.60*	.71*	–							
6. Satisfaction w/ Life T1	−.41*	−.25*	−.28*	−.49*	−.42*	–						
7. Alcohol Frequency T1	.11	.05	.08	.08	.12	−.06	–					
8. Binge Drinking T1	.20*	.13	.27*	.03	.23*	−.03	.48*	–				
9. Reentry Shock T2	.74*	.28*	.36*	.61*	.62*	−.39*	.09	.17	–			
10. COVID-19 Stress T2	.60*	.31*	.38*	.53*	.61*	−.36*	.07	.21*	.64*	–		
11. Perceived Stress T2	.42*	.22*	.57*	.44	.50*	−.41*	−.01	.13	.41*	.36*	–	
12. Loneliness T2	.56*	.32*	.25*	.66	.56*	−.48*	−.03	−.05	.67*	.54*	.43*	–
M	3.33	3.20	3.22	2.78	2.94	3.64	2.72	0.62	3.20	2.05	3.11	2.53
SD	0.64	0.85	0.69	0.76	0.74	0.89	1.98	1.09	0.59	0.75	0.56	0.82

Note. * $p < .05$.

Table 3
Items of the COVID-19 Stress Scale With Means and Standard Deviations Measured at T2.

Item	*M*	*SD*
1. I was not able to say goodbye to people in my study abroad location	2.73	1.82
2. I was abruptly notified that my study abroad program was cancelled	3.63	1.01
3. I was not in my host country when I was notified that my study abroad program was cancelled	.61	1.34
4. I received little instruction from my study abroad program concerning the reentry home	2.58	1.69
5. After I heard that my study abroad program was canceled, I had to immediately start packing all my belongings	2.98	1.58
6. I had to throw away personal belongings that did not fit in my suitcase	2.25	1.76
7. I struggled to find a flight home	2.34	1.93
8. My flight home was canceled and/or rescheduled at least one time before I was able to come back home	1.39	1.91
9. The airport in my study abroad location did not implement the CDC health and safety guidelines to prevent the spread of COVID-19	1.80	1.82
10. The U.S. airport did not implement the CDC health and safety guidelines to prevent the spread of COVID-19	2.01	1.83
11. I experienced symptoms of COVID-19 after I came back from studying abroad	.54	1.36
12. I had troubles sleeping after I came back from studying abroad	1.86	1.77
13. I quarantined alone for two weeks after I came back from studying abroad	2.17	1.69
14. I was not able to quarantine in the place where I lived prior to studying abroad (i.e., apartment, campus dorms, house)	1.31	1.78
15. My family had to adapt their daily schedule to accommodate my quarantine after I came back from studying abroad	1.89	1.95
16. I had to adapt and learn how to live with my family again after I came back from studying abroad	2.10	1.79
17. I felt anxious after I came back from studying abroad	2.79	1.84
18. I often cried after I came back from studying abroad	2.01	1.85
19. I struggled to find a routine after I came back from studying abroad	2.94	1.58
20. I had the motivation to carry out my daily tasks after I came back from studying abroad (reverse coded)	3.07	1.49
21. I felt depressed	2.43	1.86
22. I felt lonely	2.63	1.71
23. After I returned home, I had to synchronously attend classes at my host university	2.28	2.01
24. After I returned home, I had a hard time attending online classes at my home university	2.37	1.96
25. I had to take additional classes to stay on track or graduate on time	0.87	1.59
26. After I returned home, I lost my job and/or internship I had planned for the summer	1.60	1.96
27. I did not receive financial reimbursement for my early flight home or for previously planned trips	1.68	1.99
28. It was difficult maintaining contact with the friends and connections I had made while abroad	2.38	1.83
29. I was treated with fear or uneasiness by parents, family members, neighbors due to my early reentry from my study abroad in a Level III country	1.46	1.77
30. I felt frustration over having to experience a quarantine all over again, as I did before leaving my host country	1.44	1.77

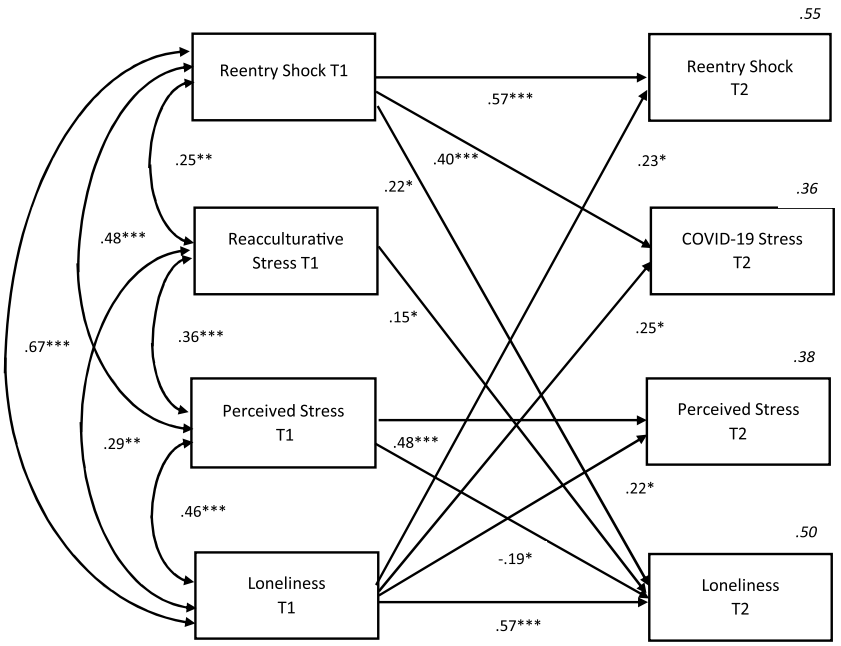

Fig. 1. Concurrent and Prospective Effects of Reentry Stress.
Note. Figure values associated with curved arrows are correlation coefficients and those associated with straight arrows are standardized regression coefficients. Values in italics are squared multiple correlations. Nonsignificant paths have been trimmed from the model. For ease of presentation, error terms are omitted. * $p < .05$. ** $p < .01$. *** $p < .001$.

Discussion

This study was designed to test concurrent and longitudinal associations between reacculturative stress and mental health outcomes in a sample of university students who experienced an unplanned termination of their study abroad experience. The results indicated that 30–40 % of the sample reported increased reacculturative stress and decreased mental health over time. At the same time, on average, student participants reported significant decreases in reentry shock and loneliness over the 6-month study. While the decrease in reentry shock is consistent with previous literature suggesting that the effects of reentry shock gradually "go away" as returners readjust at home (Gullahorn & Gullahorn, 1963; Seiter & Waddell, 1989), the decrease in loneliness at T2 can be explained by students' relief to be back safely with their family during the pandemic (Kartoshkina, 2015). As the United States transitioned to a time of quarantine and lockdown, returning students may have felt "less lonely" in their struggle because everyone was going through the pandemic "together." Rather than feeling like "the only ones" going through quarantine after being sent home, they shared this experience with people in their home country. Consistent with the stress process model, secondary stressors associated with reacculturation were predictive concurrently and longitudinally of mental health outcomes, especially loneliness. This indicates that those students who had the hardest time returning home unexpectedly were at the highest risk for worsened mental health over the ensuing months. These findings reveal that reacculturation following unplanned termination of a study abroad experience is not an event as much as it is a process that unfolds over a period of months, as would be understood from the perspective of the stress process model.

Shortly after their return home, participants reported levels of reentry shock and reacculturative stress that were just above the midpoint of the scale, suggesting moderate stress. Each of these stressors associated with the unplanned return home was associated with indicators of compromised mental health, specifically greater perceived stress, loneliness, depression, binge drinking (with reentry shock only), and lower satisfaction with life. These findings are consistent with prior research showing that departure from a host culture and the return home can be a stressful time that requires readjustment (Butcher, 2002; Pritchard, 2011). The significant association between reentry shock and binge drinking is also consistent with prior findings (Pedersen et al., 2014) and suggestive of the self-medication model of alcohol consumption (Khantzian, 1990) whereby people will drink heavily to cope with stress, especially for students who returned home from European countries with lower drinking ages than the United States. Although cross-sectional in nature, these findings hint at the idea that reacculturative stress and reentry shock are disruptive to mental health, particularly because certain indicators included here (e.g., binge drinking, lower satisfaction with life) are far more plausible as consequences than causes of reacculturative stress.

To more stringently test the hypothesis that the secondary stressors of reacculturative stress and reentry shock are disruptive to mental health as predicted by the stress process model (Pearlin et al., 1990), participants were followed for a period of six months after their return to the United States. Longitudinal findings showed that both reentry shock and reacculturative stress predicted increased loneliness during the 6-month period of observation, which align with Furukawa's (1997) findings suggesting that individuals can display considerable emotional distress as much as six months after their reentry. This finding is particularly remarkable in that T1 reentry shock and reacculturative stress had this effect even after controlling for T1 perceived stress and loneliness. This highlights how disruption in social routines and relationships that are part and parcel of the experience of reentry shock (e.g., "My friends seem to have changed since I have been gone", "I miss the friends I made abroad") and reacculturative stress (e.g., "Because of the COVID-19, many social opportunities are denied to me"), can leave people feeling socially stressed and unfulfilled. This finding could also be explained by the abrupt termination of the study abroad experience because students were denied the opportunity and time to develop stronger bonds with their peers or with locals in the host country due to the early reentry. Students had to return home as soon as they were starting to become fluent in the host language and develop friendships. It is understandable that in a sample of emerging adults, where goals to establish relationships and intimacy are so salient (Zimmer-Gembeck & Petherick, 2006), social disruptions are particularly consequential to well-being. Nevertheless, this is a concern given how deleterious loneliness can be for both mental and physical health (e.g., Hawkley et al., 2003). What makes this finding particularly remarkable is the fact that student participants were mostly returning home from brief stays in their host cultures. Nevertheless, feelings of reacculturative stress and reentry shock upon their return proved to have a long reach, predicting increases in loneliness six months later.

Although the stress process model would situate loneliness as a mental health outcome of stress processes, the longitudinal nature of this investigation allowed for a test of loneliness as an antecedent to stress processes as well. In fact, T1 loneliness significantly predicted increases in reentry shock, COVID-19 stress (e.g., "Because of the COVID-19, I am treated differently in social situations") and perceived stress (e.g., "How often have you been angered because of things that happened that were outside of your control?") over time. The fact that returning students were already lonely at T1 (probably due to quarantine and social distancing) suggests a possible deviation from the traditional trajectory of the W-Curve model (Gullahorn & Gullahorn, 1963), which is characterized by a distinct honeymoon phase upon reentry where returners are excited to be back. Due to COVID-19, returning students found themselves isolated, unable to reconnect with their loved ones, visit their favorite places, or do the things they missed the most. In addition, given that their sojourn was so short, they did not even have time to miss their home country before they had to come back, thus taking away the feelings of excitement, "skipping" the honeymoon stage, and experiencing the negative effects of reentry shock right away.

Theoretical implications

Overall, this study offers important theoretical and practical contributions. From a theoretical standpoint, this study examined a rare case of unplanned reentry during a disrupted academic sojourn, adding to the current body of research on involuntary reentry among other sojourners (i.e., military personnel, corporate employees, missionaries; Szkudlarek, 2010). Compared to other sojourners, students not only have agency to choose their preferred destination, length, and type of study abroad experience, but also a limited

timeframe to go abroad while they are enrolled in an academic institution. Because this experience has often been conceptualized as a unique period of transformation, growth, and self-discovery that students plan since the beginning of their college experience (Bell, 2016), it is possible that the early reentry had negative, more severe, long-term implications for their mental health.

Another theoretical contribution concerns the association between reentry shock and the length of the sojourn abroad. While previous literature suggests that repatriates who stay longer abroad have the most trouble readjusting at home because they had more time to adapt to their new life (Forster, 1994; Szkudlarek, 2010), our findings suggest that, despite the short duration of their experience, returning students were not immune to the negative effects of reentry shock and reacculturative stress; instead, they might have been more susceptible to them due to the inability to "complete" what they started abroad (e.g., language gains, relationship development, travelling, personal goals). This state of "incompleteness," coupled with the unique stressors of the pandemic, might have prolonged returners' feelings of isolation, loneliness, and alienation. These findings also show how students who are lonely upon their return from a study abroad experience are particularly at risk for experiencing complications associated with adjusting to their home. Even six months after the return-home order, those who experienced the most loneliness at T1 reported the greatest COVID-19 stress and perceived stress, despite either starting the next semester of studies at the university or graduating from university.

Finally, extending the ABC model of culture shock introduced by Ward et al. (2001), our findings suggest that reentry can be best understood as a complex cultural transition encompassing different aspects of emotion, behavior, and cognition that reciprocally influence one another (Zhou, Jindal-Snape, Topping, & Todman, 2008). While this study primarily focuses on the affective sphere (i.e., psychological health), the behavioral and cognitive ones are directly connected to how returners manage their stress and emotions upon reentry. Moreover, this study highlights the importance of contextual and environmental factors (Kim, 2001) that profoundly shape the experience of reentry. While previous literature assumes that returners eventually (and gradually) return to normalcy, this may not be possible during a global pandemic, where people had limited freedom to engage in daily activities. Because the concept of "normalcy" may no longer exist (Mok, Xiong, Ke, & Cheung, 2021), students' prolonged state of distress might be explained by their difficulty creating their "new normal" and inability to regain functional fitness.

Practical implications

This study offers practical implications as U.S. universities and study abroad administrators attempting to reimagine international education and critically evaluate their programs in light of the current events (Dietrich, 2020). First, this is one of the few studies that documented effects of abrupt repatriation within academic sojourns. Aside from another global disruption like the COVID-19 pandemic, many other unpredictable factors could require an early repatriation from studying abroad (Scott, 2015): natural calamities, health emergencies (Goodman, 2020), loss of a loved one, geo-political instability in the host country, and other circumstances where the health and safety of students might be at risk (Engstrom & Mathiesen, 2012; Follain, 2013). To what degree were U.S. universities prepared to deal with unplanned reentry and support student well-being during that difficult time? Could some of the reentry stressors have been prevented? Although the amount of uncertainty caused by the pandemic could not have been predicted, this case of early reentry represents an opportunity to reflect on how study abroad programs handled the situation and supported students at home (Dietrich, 2020). The negative mental health outcomes revealed in the findings of this investigation highlight the potential value in addressing long-term implications on students' well-being and developing additional resources to manage unplanned reentry in the future. Looking at the results from the COVID-19 Stress Scale, returning students mentioned several stressors related to how their home university managed the situation, including ambiguous, unclear, or insufficient communication (indicated by 81 % of participants), lack of financial reimbursement (48 %), and logistical difficulties transferring credits and/or synchronously attending online classes in the home and host countries (67 %). These difficulties might have further slowed down the process of readaptation, especially when students lacked the financial, social, and academic support from their home country's institution. Even though the pandemic has profoundly changed the future of international education (Fischer, 2021) and will "significantly decrease international student mobility due to travel restrictions, campus closure, and families' consideration of health and safety" (Mok et al., 2021, p. 9), study abroad programs should use this preliminary evidence to develop emotional, financial, and informational support for returning students and their families, offering opportunities for financial restitution (when possible), or future study abroad opportunities (when desired).

Limitations and future directions

There are several scope conditions inherent in the design of this study that should be considered when interpreting these findings. First, the primary stressor, namely, being forced to return home prematurely from a study abroad experience, occurred for all participants but was treated as an unmeasured constant. However, there are certain features of this stressor (e.g., exactly how long students were in the host culture, how far they had to travel to return home, how much out of pocket expense they had) that could vary extensively from participant to participant. Assessment of these features could have added substantial explanatory power to the stress process model that was tested. In the future, researchers should consider some of these individual and contextual factors as possible moderators that could have influenced returning students' psychological health, appraisal, and stress management upon reentry. Second, in the service of brevity and retaining a high proportion of participants in the T2 questionnaire, a number of T1 measures (e.g., satisfaction with life) were dropped. This limits the completeness of the picture of overall stress reactions experienced by these returning students. Because this study primarily examined the longitudinal effects of U.S. students' early reentry on psychological health (i.e., loneliness, depression, stress), not much is known about the actual strategies that students used to manage these numerous stressors. Readjustment is an active process rather than a passive one (Kim, 2001; Pitts, 2016), which requires constant recalibration

with the environment, as well as a strategic use of affective, cognitive, and behavioral resources to find a new functional fitness. It is possible that, consistent with Culture Learning Theory (Furnham & Bochner, 1986), returning students might have been able to transfer some skills learned abroad to best adapt to their changed environment at home during the pandemic (Ward et al., 2001). Therefore, future research should continue to examine the role of stress-management practices and social support at home (e.g., family, friends, romantic partners) as having a possible stress-buffering effect upon reentry. Third, the participants in this study were somewhat unique and homogeneous in that they were all university students at T1 who voluntarily sought and often planned their college career around their study abroad experience, possibly making the effects of the early reentry even more debilitating. Whether the findings on reacculturative stress could apply to other groups of sojourners (e.g., deployed military personnel returning home, employees with overseas assignments) is at best, questionable. Finally, the nature of the return home was not voluntary for any of the participants and occurred in concert with a global pandemic that was *per se* a stressful experience (Dietrich, 2020). This too limits generalizability of these findings, as they may not apply to those who voluntarily returned to their home cultures, especially on their own timelines and for their own reasons (Bilton, 2018). For these reasons, future research would greatly benefit from a comparative analysis looking at voluntary and involuntary cases of reentry during academic sojourns (Scott, 2015), to assess whether there are meaningful differences in the psychological health of these two groups both upon immediate reentry and over time.

Conclusion

The results of this investigation highlight the key role of loneliness as both a potential mental health outcome of reacculturation and a cause of prolonged or worsening reacculturative stress. Loneliness and reacculturation, under the circumstances explored in this study, appear to have reciprocal effects on each other. Students encountering greater reacculturative stress exhibited increased loneliness over time, and those who were most lonely upon their return experienced a worsening of reacculturative stress (as indexed by reentry shock). These findings are especially noteworthy given that most students reported significant decreases in reentry shock and loneliness over the course of the study. This points to high loneliness as a marker for at-risk status among those students who return home from study abroad. Consistent with the stress process model, high levels of reacculturative stress upon return are also a risk factor for compromised mental health, particularly in the form of loneliness, but also concurrent depression, perceived stress, binge drinking, and lower life satisfaction in students transitioning back to their home culture.

Funding details

The authors received funding from the Robert Wickwire Trust.

Declaration of Competing Interest

No potential conflict of interest was reported by the authors.

Acknowledgements

The authors wish to acknowledge the generous support of the Robert Wickwire Trust, R. Amanda Cooper for input on the conceptualization of this project, and Austin Drukker for his editorial assistance. Finally, a special thank you goes to all the participants who were willing to share their stories of reentry, as well as the following institutions that helped in the recruitment process: The University of Arizona, The University of Nebraska at Omaha, Gordon College, The Master's University, The University of Illinois at Urbana-Champaign, and Palm Beach Atlantic University.

References

Adler, N. J. (1981). Reentry: Managing cross-cultural transitions. *Group & Organization Studies, 6*(3), 341–356. https://doi.org/10.1177/105960118100600310.
Arthur, N. (2003). Preparing international students for the reentry transition. *Canadian Journal of Counselling, 37*(3), 173–185.
Asberg, K. K., Bowers, C., Renk, K., & McKinney, C. (2008). A structural equation modeling approach to the study of stress and psychological adjustment in emerging adults. *Child Psychiatry and Human Development, 39*(4), 481–501. https://doi.org/10.1007/s10578-008-0102-0.
Bell, R. (2016). Concerns and expectations of students participating in study abroad programmes: Blogging to reveal the dynamic student voice. *Journal of Research in International Education, 15*(3), 196–207. https://doi.org/10.1177/1475240916669028.
Bilton, I. (2018). *Family emergency while studying abroad? Stay calm, here's what to do*…. June 19. Study International https://www.studyinternational.com/news/family-emergency-while-studying-abroad-stay-calm-heres-what-to-do/.
Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa.
Brown, E. G., Gallagher, S., & Creaven, A. (2018). Loneliness and acute stress reactivity: A systematic review of psychophysiological studies. *Psychophysiology, 55*(5), 1–14. https://doi.org/10.1111/psyp.13031.
Buser, J. K., & Kearney, A. (2017). Stress, adaptive coping, and life satisfaction. *Journal of College Counseling, 20*(3), 224–236. https://doi.org/10.1002/jocc.12071.
Butcher, A. (2002). A grief observed: Grief experiences of East Asian international students returning to their countries of origin. *Journal of Studies in International Education, 6*(4), 354–368. https://doi.org/10.1177/102831502237641.
Campagne, D. M. (2019). Stress and perceived social isolation (loneliness). *Archives of Gerontology and Geriatrics, 82*, 192–199. https://doi.org/10.1016/j.archger.2019.02.007.
Charmaz, K. (2014). *Constructing grounded theory*. Sage.
Choi, I. H. (2009). Socio-cultural readjustment of Korean students returning from overseas. *International Journal of Human Ecology, 10*(1), 87–98.
Choi, H., & Dancy, B. L. (2009). Korean American adolescents' and their parents' perceptions of acculturative stress. *Journal of Child and Adolescent Psychiatric Nursing, 22*(4), 203–210. https://doi.org/10.1111/j.1744-6171.2009.00200.x.

Christofi, V., & Thompson, C. L. (2007). You cannot go home again: A phenomenological investigation of returning to the sojourn country after studying abroad. *Journal of Counseling & Development, 85*(1), 53–63. https://doi.org/10.1002/j.1556-6678.2007.tb00444.x.
Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior, 24*(4), 385–396. https://doi.org/10.2307/2136404.
Connors, M. C. (n.d.). Lessons from an interrupted semester abroad. Princeton Institute for International and Regional Studies [PIIRS]. http://piirs.princeton.edu/news-events/princeton-international-magazine/2020/lessons-interrupted-semester-abroad.
Creemers, D. H. M., Scholte, R. H. J., Engels, R. C. M. E., Pieters, S., & Wiers, R. W. (2013). Acute stress increases implicit depression and decreases implicit self-esteem. *Journal of Experimental Psychopathology, 4*(2), 118–132. https://doi.org/10.5127/jep.025411.
Dietrich, A. J. (2020). Charting a path forward for education abroad research. *Frontiers: The Interdisciplinary Journal of Study Abroad, 32*(2), 1–11. https://doi.org/10.36366/frontiers.v32i2.465.
Dong, E., Du, H., & Gardner, L. (2020). An interactive web-based dashboard to track COVID-19 in real time. *Lancet Infectious Diseases, 20*(5), 533–534. https://doi.org/10.1016/S1473-3099(20)30120-1.
Dunford, D., Dale, B., Stylianou, N., Lowther, E., Ahmed, M., & de la Torre Arenas, I. (2020). *Coronavirus: The world in lockdown in maps and charts*. April 7. BBC News https://www.bbc.com/news/world-52103747.
Enders, C. K., & Bandalos, D. L. (2001). The relative performance of full information maximum likelihood estimation for missing data in structural equation models. *Structural Equation Modeling, 8*(3), 430–457. https://doi.org/10.1207/S15328007SEM0803_5.
Engstrom, D., & Mathiesen, S. (2012). Study abroad and an accidental death: Lessons learned. *Journal of Social Work Education, 48*(4), 785–796. https://doi.org/10.5175/JSWE.2012.201100068.
Fischer, K. (2021). *The year without study abroad. COVID-19 could lead to lasting change in international learning*. April 1. The Chronicles of Higher Education https://www.chronicle.com/article/the-year-without-study-abroad.
Follain, J. (2013). *A death in Italy: The definitive account of the Amanda Knox case*. St. Martin's Press.
Forster, N. (1994). The forgotten employees? The experiences of expatriate staff returning to the UK. *International Journal of Human Resource Management, 5*(2), 405–425. https://doi.org/10.1080/09585199400000024.
Furnham, A., & Bochner, S. (1986). *Culture shock: Psychological reactions to unfamiliar environments*. Metheun.
Furukawa, T. (1997). Sojourner readjustment: Mental health of international students after one year's foreign sojourn and its psychosocial correlates. *Journal of Nervous and Mental Disease, 185*(4), 263–268. https://doi.org/10.1097/00005053-199704000-00007.
Gaw, K. F. (2000). Reverse culture shock in students returning from overseas. *International Journal of Intercultural Relations, 24*(1), 83–104. https://doi.org/10.1016/S0147-1767(99)00024-3.
Goodman, A. (2020). *U.S. study abroad during health crises*. March 19. IIE Interactive https://mailchi.mp/iie/iieinteractive-255029?e=9b9ec9aa60.
Gullahorn, J. T., & Gullahorn, J. E. (1963). An extension of the U-curve hypothesis. *Journal of Social Issues, 19*(3), 33–47. https://doi.org/10.1111/j.1540-4560.1963.tb00447.x.
Hasselle, A. J., Schwartz, L. E., Berlin, K. S., & Howell, K. H. (2019). A latent profile analysis of coping responses to individuals' most traumatic event: Associations with adaptive and maladaptive mental health outcomes. *Anxiety, Stress & Coping, 32*(6), 626–640. https://doi.org/10.1080/10615806.2019.1638733.
Hawkley, L. C., Burleson, M. H., Berntson, G. G., & Cacioppo, J. T. (2003). Loneliness in everyday life: Cardiovascular activity, psychosocial context, and health behaviors. *Journal of Personality and Social Psychology, 85*(1), 105–120. https://doi.org/10.1037/0022-3514.85.1.105.
Hawkley, L. C., Hughes, M. E., Waite, L. J., Masi, C. M., Thisted, R. A., & Cacioppo, J. T. (2008). From social structural factors to perceptions of relationship quality and loneliness: The Chicago Health, Aging, and Social Relations Study. *The Journals of Gerontology: Series B: Psychological Sciences and Social Sciences, 63*(6), S375–S384. https://doi.org/10.1093/geronb/63.6.S375.
Isa, M. (2000). Phenomenological analysis of the reentry experiences of the wives of Japanese corporate sojourners. *Women and Language, 23*(2), 26.
Jorden, M. A., Rudman, S. L., Villarino, E., Hoferka, S., Patel, M. T., Bernis, K., et al. (2020). Evidence for limited early spread of COVID-19 within the United States, January–February 2020. *Morbidity and Mortality Weekly Report, 69*, 680–684. https://doi.org/10.15585/mmwr.mm6922e1.
Kartoshkina, Y. (2015). Bitter-sweet reentry after studying abroad. *International Journal of Intercultural Relations, 44*, 35–45. https://doi.org/10.1016/j.ijintrel.2014.11.001.
Khantzian, E. J. (1990). Self-regulation and self-medication factors in alcoholism and the addictions: Similarities and differences. *Recent Developments in Alcoholism, 8*, 255–271.
Kim, Y. (2001). *Becoming intercultural: An integrative theory of communication and cross-cultural adaptation*. Sage. https://doi.org/10.4135/9781452233253.
Kline, R. B. (2015). *Principles and practice of structural equation modeling* (4th ed.). Guilford Press.
Liu, Y., & Shirley, T. (2021). Without crossing a border: Exploring the impact of shifting study abroad online on students' learning and intercultural competence development during the COVID-19 pandemic. *Online Learning, 25*(1), 182–194. https://doi.org/10.24059/olj.v25i1.2471.
Loeffler-Wirth, H., Schmidt, M., & Binder, H. (2020). Covid-19 Transmission trajectories-monitoring the pandemic in the worldwide context. *Viruses, 12*(7), 777. https://doi.org/10.3390/v12070777.
Lysgaard, S. (1955). Adjustment in a foreign society: Norwegian Fulbright grantees visiting the United States. *International Social Science Bulletin, 7*, 45–51.
Marsh, H. L. (1975). *Re-entry/transition seminars (report on wingspread colloquium)*.
Martin, J. N. (1986). Patterns of communication in three types of reentry relationships: An exploratory study. *Western Journal of Speech Communication, 50*(2), 183–199. https://doi.org/10.1080/10570318609374224.
McDonald, R. P. (1999). *Test theory: A unified treatment*. Lawrence Erlbaum.
Metzger, I. W., Blevins, C., Calhoun, C. D., Ritchwood, T. D., Gilmore, A. K., Stewart, R., et al. (2017). An examination of the impact of maladaptive coping on the association between stressor type and alcohol use in college. *Journal of American College Health, 65*(8), 534–541. https://doi.org/10.1080/07448481.2017.1351445.
Mok, K. H., Xiong, W., Ke, G., & Cheung, J. O. W. (2021). Impact of COVID-19 pandemic on international higher education and student mobility: Student perspectives from mainland China and Hong Kong. *International Journal of Educational Research, 105*, Article 101718. https://doi.org/10.1016/j.ijer.2020.101718.
Oberg, K. (1960). Cultural shock: Adjustment to new cultural environments. *Practical Anthropology, 7*(4), 177–182. https://doi.org/10.1177/009182966000700405.
Owen, Q. (2020). *Authorities to enforce Trump's new coronavirus travel restrictions at US airports*. March 13. ABC News https://abcnews.go.com/Politics/authorities-enforce-trumps-coronavirus-travel-restrictions-us-airports/story?id=69580793.
Pavot, W., & Diener, E. (2008). The Satisfaction with Life Scale and the emerging construct of life satisfaction. *The Journal of Positive Psychology, 3*(2), 137–152. https://doi.org/10.1080/17439760701756946.
Pearlin, L. I. (1999). The stress process revisited. In C. S. Aneshensel, & J. C. Phelan (Eds.), *Handbook of the sociology of mental health* (pp. 395–415). Springer US.
Pearlin, L. I., Mullan, J. T., Semple, S. J., & Skaff, M. M. (1990). Caregiving and the stress process: An overview of concepts and their measures. *Gerontologist, 30*(5), 583–594. https://doi.org/10.1093/geront/30.5.583.
Pedersen, E. R., Skidmore, J. R., & Aresi, G. (2014). Demographic and pre-departure factors associated with drinking and alcohol-related consequences for college students completing study abroad experiences. *Journal of American College Health, 62*(4), 244–254. https://doi.org/10.1080/07448481.2014.887573.
Peplau, L. A., & Perlman, D. (1982). Perspectives on loneliness. In L. A. Peplau, & D. Perlman (Eds.), *Loneliness: A sourcebook of current theory, research and therapy* (pp. 1–18). Wiley.
Pitts, M. J. (2009). Identity and the role of expectations, stress, and talk in short-term student sojourner adjustment: An application of the integrative theory of communication and cross-cultural adaptation. *International Journal of Intercultural Relations, 33*(6), 450–462. https://doi.org/10.1016/j.ijintrel.2009.07.002.
Pitts, M. J. (2016). Sojourner reentry: A grounded elaboration of the integrative theory of communication and cross-cultural adaptation. *Communication Monographs, 83*(4), 419–445. https://doi.org/10.1080/03637751.2015.1128557.
Presbitero, A. (2016). Culture shock and reverse culture shock: The moderating role of cultural intelligence in international students' adaptation. *International Journal of Intercultural Relations, 53*, 28–38. https://doi.org/10.1016/j.ijintrel.2016.05.004.

Pritchard, R. (2011). Reentry trauma: Asian re-integration after study in the West. *Journal of Studies in International Education, 15*(1), 93–111. https://doi.org/10.1177/1028315310365541.
Radloff, L. S., & Teri, L. (1986). Use of the center for epidemiological studies-depression scale with older adults. *Clinical Gerontologist, 5*(1–2), 119–136. https://doi.org/10.1300/J018v05n01_06.
Redden, E. (2020). *International and study abroad students see major disruptions*. March 20. Inside Higher Ed. https://www.insidehighered.com/news/2020/03/20/covid-19-disrupts-international-student-exchange-both-directions.
Rokach, A. (2007). The effect of age and culture on the causes of loneliness. *Social Behavior and Personality: An International Journal, 35*(2), 169–186. https://doi.org/10.2224/sbp.2007.35.2.169.
Rokach, A., & Brock, H. (1996). The causes of loneliness. *Psychology: A Journal of Human Behavior, 33*(3), 1–11.
Russell, D. W. (1996). UCLA Loneliness Scale (Version 3): Reliability, validity, and factor structure. *Journal of Personality Assessment, 66*(1), 20–40. https://doi.org/10.1207/s15327752jpa6601_2.
Ryan, M. E., & Twibell, R. S. (2000). Concerns, values, stress, coping, health and educational outcomes of college students who studied abroad. *International Journal of Intercultural Relations, 24*(4), 409–435. https://doi.org/10.1016/S0147-1767(00)00014-6.
Sahin, N. H. (1990). Re-entry and the academic and psychological problems of the second generation. *Psychology and Developing Societies, 2*(2), 165–182. https://doi.org/10.1177/097133369000200202.
Scott, R. (2015). *Homesick or heartbroken: What happens if you leave study abroad early?*. July 21. Noodle https://www.noodle.com/articles/leaving-study-abroad-early.
Segrin, C., McNelis, M., & Pavlich, C. A. (2018). Indirect effects of loneliness on substance use through stress. *Health Communication, 33*(5), 513–518. https://doi.org/10.1080/10410236.2016.1278507.
Segrin, C., Pavlich, C. A., & McNelis, M. (2017). Transitional instability predicts polymorphous distress in emerging adults. *Journal of Psychology, 151*(5), 496–506.
Seiter, J. S., & Waddell, D. (1989). The intercultural re-entry process: Re-entry shock, locus of control, satisfaction and interpersonal uses of communication. *Paper Presented at the Annual Meeting of the Western Speech Communication Association*.
Steptoe, A., Owen, N., Kunz-Ebrecht, S. R., & Brydon, L. (2004). Loneliness and neuroendocrine, cardiovascular, and inflammatory stress responses in middle-aged men and women. *Psychoneuroendocrinology, 29*(5), 593–611. https://doi.org/10.1016/S0306-4530(03)00086-6.
Stoliker, B. E., & Lafreniere, K. D. (2015). The influence of perceived stress, loneliness, and learning burnout on university students' educational experience. *College Student Journal, 49*(1), 146–160.
Sussman, N. M. (2000). The dynamic nature of cultural identity throughout cultural transitions: Why home is not so sweet. *Personality and Social Psychology Review, 4*(4), 355–373. https://doi.org/10.1207/S15327957PSPR0404_5.
Szkudlarek, B. (2010). Reentry: A review of the literature. *International Journal of Intercultural Relations, 34*(1), 1–21. https://doi.org/10.1016/j.ijintrel.2009.06.006.
Tomlin, C. R., Miller, M. L., Schellhase, E., New, G., Karwa, R., & Ouma, M. N. (2014). Assessing reverse culture shock following an international pharmacy practice experience. *Currents in Pharmacy Teaching and Learning, 6*(1), 106–113. https://doi.org/10.1016/j.cptl.2013.09.015.
Van Gorp, L., Boros, S., Bracke, P., & Stevens, P. (2017). Emotional support on reentry into the home country: Does it matter for repatriates' adjustment who the providers are? *International Journal of Intercultural Relations, 58*, 54–68. https://doi.org/10.1016/j.ijintrel.2017.04.007.
Ward, C., Bochner, S., & Furnham, A. (2001). *The psychology of culture shock*. Routledge.
West, S. G., Taylor, A. B., & Wu, W. (2012). Model fit and model selection in structural equation modeling. In R. H. Hoyle (Ed.), *Handbook of structural equation modeling* (pp. 209–231). The Guilford Press.
Wielkiewicz, R. M., & Turkowski, L. W. (2010). Reentry issues upon returning from study abroad programs. *Journal of College Student Development, 51*(6), 649–664. https://doi.org/10.1353/csd.2010.0015.
World Health Organization. (2020). *WHO Director-General's opening remarks at the media briefing on COVID-19*. March 11 https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19—11-march-2020.
World Health Organization. (2021). *WHO coronavirus dashboard*. April 8 https://covid19.who.int/.
Young, G. E. (2014). Reentry: Supporting students in the final stage of study abroad. *New Directions for Student Services, 2014*(146), 59–67. https://doi.org/10.1002/ss.20091.
Zhou, Y., Jindal-Snape, D., Topping, K., & Todman, J. (2008). Theoretical models of culture shock and adaptation in international students in higher education. *Studies in Higher Education, 33*(1), 63–75. https://doi.org/10.1080/03075070701794833.
Zimmer-Gembeck, M. J., & Petherick, J. (2006). Intimacy dating goals and relationship satisfaction during adolescence and emerging adulthood: Identity formation, age and sex as moderators. *International Journal of Behavioral Development, 30*(2), 167–177. https://doi.org/10.1177/0165025406063636.
Zinbarg, R., Revelle, W., Yovel, I., & Li, W. (2005). Cronbach's α, Revelle's β, and McDonald's ω_h: Their relations with each other and two alternative conceptualizations of reliability. *Psychometrika, 70*(1), 123–133. https://doi.org/10.1007/s11336-003-0974-7.

Alice Fanari is a doctoral student in the Department of Communication at the University of Arizona. Her interests include intercultural, interpersonal, and positive communication that facilitates cross-cultural interactions.

Chris Segrin (Ph.D.) is Department Head and Steve and Nancy Lynn Professor of Communication in the Department of Communication at the University of Arizona. His research interests are in interpersonal communication and mental health.